

CACTUS AND SUCCULENT JOURNAL

Of the Cactus And Succulent Society
Of America

VOL. II

FEBRUARY, 1931

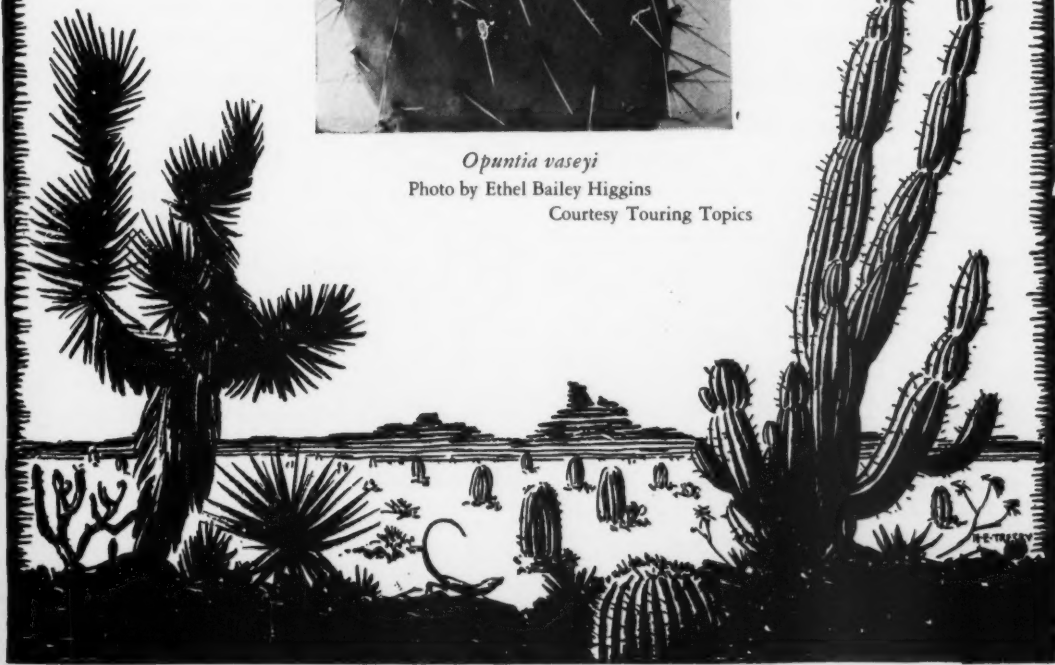
No. 8



Opuntia vaseyi

Photo by Ethel Bailey Higgins

Courtesy Touring Topics



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New Color Plates

Dr. Erich Werdermann's "Blühende Sukkulanten" which is a recent publication of Thallacker and Schoeffer of Leipsic, Germany, will prove a helpful ornament to the amateur's literature on the subject of Cactus and a contribution of moment to the scientific botanist who oftentimes is in need of visual color description.

The periodical is to be published bi-monthly, (\$6.00 per year) and no question of the authenticity of its subject matter can be raised, the standing of Dr. Werdermann in the world of scientific plant life being its sponsor. He is not only the Custodian of the Botanical Museum at Berlin, an Associate of the University of Berlin, but he is President of the large and flourishing

organization of succulent growers, who assemble under the name of Deutsche Kakteen-Gesellschaft. Moreover, he is the editor of "Kakteen" and his ever ready pen and active brain find time for constant contributions to various publications throughout the world, having to do with the succulent tribe. Apparently having found more than 24 hours in the German day, he has become an expert in producing colored photographs.

The form of the recent periodical is not magazine form at all, but is a series of separated color plates, from original photographs by Dr. Werdermann, himself, with leaflet descriptions, enclosed in a folder envelope of heavy gray bristol paper. The studies in the current number are gay with *Mammillaria* in full flower.

M. N. L.

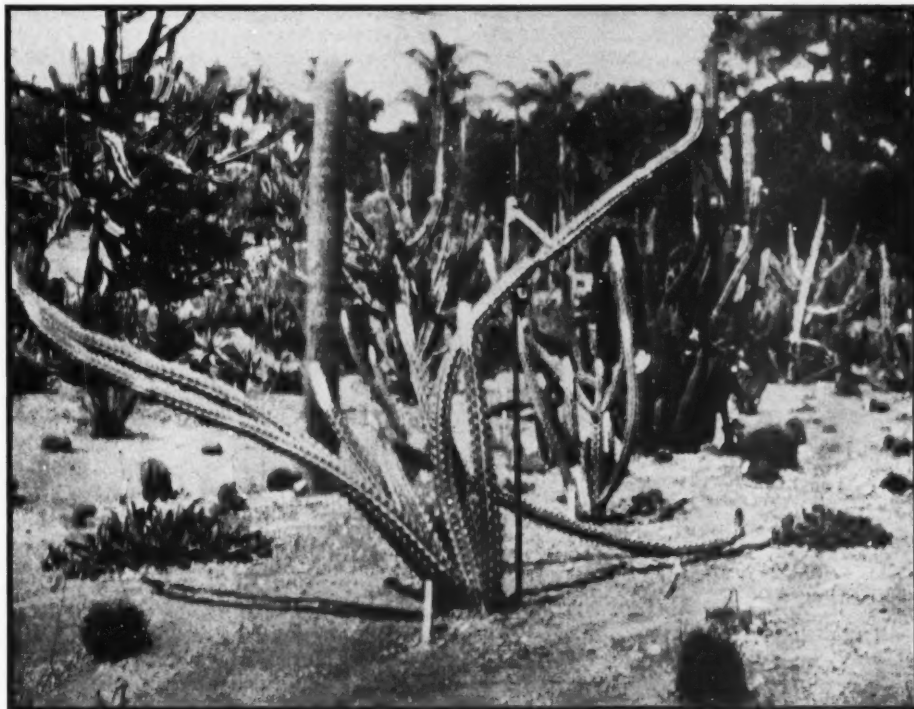


Photo by L. S. Harris

The Silver-tip cactus, *Lemaireocereus beneckei*, and a *Cephalocereus senilis* in background, grouped in Huntington Cactus Garden. (Height 8 and 10 feet.)

THE CACTACEAN'S PRIMER

Outline of Familiar Cacti, (III) CEREAE

By JACOLYN MANNING, M.D.

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In the foregoing article we gave a brief outline of the (I) PERESKIEAE, and (II) of the OPUNTIEAE. In outlining the third natural division of the Cactus Family, (III) the CEREAE, we will amplify our text so far as space permits, because this group contains the most famous, the most beautiful, and the most dearly beloved members of the untamed flora of the Americas.

The CEREUS Tribe and its eight Sub-tribes might be compared to an orange and its separate sections, all closely related yet parted naturally into distinct divisions. Each one of these Sub-tribes in the long past differentiated itself from

all of its fellows with a characteristic stature, root system, armature, flower, or color card; these characteristics it bequeathed, in part or whole, to its many children.

Do not be staggered by the polysyllabic names which follow, ascertain to which division your favorite cactus belongs, and familiarize yourself with its immediate associates. Could you make an adequate collection of the species of one sub-genus only, we will say *Neomammillarias*, and study their characteristics until you knew them intimately, and then tell the world of these intimacies, you would become famous.

The Sub-tribes then of the CEREAE are eight:

1. CEREANAE 38 genera and 229 species
2. HYLOCEREANAE 9 genera and 48 species
3. ECHINOCEREANAE 6 genera and 115 species
4. ECHINOACTANAE 28 genera and 160 species
5. CACTANAE 2 genera and 25 species
6. CORYPHANTHANAE 14 genera and 230 species
7. EPIPHYLLANAE 6 genera and 25 species
8. RHIPSALIDANAE 8 genera and 69 species

Adaptation to environment was the main influence which brought about the variation in structure of the members of this tribe. The CEREANAE (1) usually columnar, erect, and sometimes gigantic, flourished in full sunshine on mountain slopes or mesas where nutrition was ample, and developed standing or ground reservoirs as an insurance against periods of aridity. The HYLOCEREANAE (2), vine-like and climbing cacti of tropical America, often tree dwellers in a humid atmosphere, have attenuated stems, aerial roots, and few or no spines. Their habitat and habit does not differ widely from that of the EPIPHYLLANAE (7), nor markedly from RHIPSALIDANAE (8). Numbers (2) and (7) hybridize freely. ECHINOCEREANAE, ECHINOACTANAE and CORYPHANTHANAE (Nos. 3, 4, and 6) are usually globular, semi-globular, or somewhat elongate cacti found growing on the burning sands of deserts, or on rocks and cliffs; their structure is of all best adapted to the conservation of such meagre supplies of moisture as they may obtain. CACTANAE (5), better known as melon cactus, are many of them islanders, said to thrive best in salt air.

While the list given below of the genera, subgenera and type species, of the great CEREANAE subtribe, may at first seem appalling, it is what students call "source material," and so a perennial well of information to the cactus lover. The classification was made by Drs. Britton and Rose, whose four-volume monograph, "Cactaceae," is the international authority on this subject.

CEREANAE. Genera 38.

1. CEREUS. Species 24. Columnar cacti from Brazil, Paraguay and the Argentine. *C. jamacaru* may be taken as an excellent type of this group; it is found in the State of Bahia, Brazil, and was discovered there by Dr. Guillaume Piso in 1658. It makes a fine, large specimen to 30 feet high, of a pubescent blue color, with long yellow spines, and very large white nocturnal flowers. It is a favorite in the Casino garden at Monte Carlo, and there is a superb group in the Huntington Botanic Gardens, San Marino.

2. MONVILLEA. Species 7. Slender stems 3 to 6 feet tall, and about one inch in diameter, with white blooms; habitat, Southern Brazil, North-

ern Argentine and Paraguay.

3. CEPHALOCEREUS. Species 48. From Florida and New Mexico to Ecuador and East Brazil, and the Keys and Isles of the Gulf of Mexico and the Caribbean Sea. Columnar cacti usually erect and sometimes branched. The flowering areoles often, but not always, develop an abundance of wool, which may be white, yellow or light brown in color; this may mass at the top, or one side near the top, and is called a false head (pseudocephalum); wool and hair may grow from the flowering areoles without formation of this false head; this growth, sometimes reinforced by bristles, is an evident camouflage to protect the maturing flowers and fruit from marauders. This protective tendency is the occasion of much enhancement of beauty in many members of the genera, as, notably, in the amazing coiffure of *C. senilis*, the sleek ermine of *C. palmeri*, the jaunty collar of *C. leucostele*, the tufts of white wool around the green blooms of *C. millsbaughii*, and the sun-loving down which appears briefly on the south side of the ribs of the bright-blue stems of *C. lanuginosus* (Lesser Antilles). Much else of beauty is the heritage of this noble group; nocturnal, fragrant flowers of white, rose and purple; fruit richly colored. Who will complete a collection of such rare loveliness in some favored area of our Southwest?

4. ESPOSTOA. Species 1. *E. lanata*. From high in the mountains of North Peru and Ecuador. Formerly known as *Cactus Lanatus* and abundant in culture in Germany. Carries a "false head" of beautiful, long, thick white hair.

5. BROWNINGIA. Species 1. *B. candelaris*, from Peru and Chile.

6. STETSONIA. Species 1. *S. coryne*, from Chacabait, North Argentina. A favorite and often in culture in Germany.

7. ESCONTRIA. Species 1. *E. chiotilla*, from Puebla, Mexico. Trunk short, branches numerous, to 20 feet high. Fruit edible raw or dried. "Jiotilla." The seedlings are very engaging and desirable.

8. CORRYOCACTUS. Species 3. From Peru and Bolivia.

9. PACHYCEREUS. Species 10. *P. pringlei*, a tree-like columnar cactus, forms extensive forests in Baja California, and near the Altar River, Sonora. Its enormously thick trunk, which may have a diameter of six feet, gave it the impressive early name of *Cereus titan*. The dried fruit, including the seeds, is ground into a flour by the Indians and used in making tortillas. *P. marginatus*, historically famous as the "organo cactus" sacred to the Toltecs, is also a valued possession of the modern peon; it grows to an impenetrable fence, and its flowers are in market demand for

the honey they contain.

10. LEPTOCEREUS. Species 8. West Indies.

11. EULYCHNIA. Species 4. Chile.

12. LEMAIREOCEREUS. Species 21. Columnar cacti widely distributed in Mexico and tropical America. *L. thurberi*, the most northern of this group, and found in Arizona, is a typical member. Usually without a definite trunk, it has erect and ascending branches to 20 feet high. The dried stems are used for torches; the fruit is a food staple with native tribes, known as "pitahaya dulce"; it is globular, with crimson pulp, and turns urine red. "During the time of harvest the people go all day long over the mountains and plains hunting for ripe pitahayas, and for them this is the happiest time of the year."—Clavigero, 1789.

L. beneckeii. The most unusual of the *Lemaireocereus*, and to the writer the most graceful and beautiful one to be observed in the Huntington Cactus Garden, is *L. beneckeii*. The many long and graceful stems which may attain a length of 12 to 15 feet, spring from a common base, curve away from each other in lines of beauty, and each one of these gray-green stems is tipped with four or five inches of opalescent silver. That at least is the visual impression as one approaches the charming group; on close inspection it is found these tips are powdered with white in the same dainty fashion as *Echeveria pulverulenta*. Content with its meed of beauty the flowers of *L. beneckeii* are small, brownish-green, with a rosy center, and open at night only. The eight ribs of the stem are tuberculate, with black-felted areoles, short brown spines, globose fruit, and large, black seeds which are loose in the ovary and escape by a basal pore. The red lava beds of Mexico are its native home. The plant was collected by Dr. Rose at Iguala Canyon, Guerrero, in 1905. It was named *Cereus farinosus* by Haage in 1845, and thereafter given the surname of Herr A. Benecke, a dealer in succulents in Berkenwalden, Germany. Why not designate this lovely plant with an American folk name? In the future we shall refer to it as "Silver-tip." The Silver-tip Cactus. Is it not appropriate?

It will be noticed in the accompanying photograph, taken in Huntington Cactus Garden, the two fine stands of *L. beneckeii* are just to the right and a little in front of a very fine specimen of *Cephalocereus senilis*.

13. ERDISIA. Species 4. From Peru and Chile. "Flowers unsightly." Berger.

14. BERGEROCACTUS. Species 1. *B. emoryi*. This plant formerly grew on the sands of California as far north as Oceanside. It is now found only in Baja California, and adjacent islands. The stems which may reach 3 feet in length,

and mass in a dense low thicket, are, at maturity, covered with radiant spines of flashing gold. Condensed California sunshine, viable and visible.

15. LEOCEREUS. Species 3. Brazil.

16. WILCOXIA. Species 4. Interesting cereus with very slender stems and tuberous roots used by the Indians in their pharmacopoeia. They are found from South Texas to Baja California. The crushed roots of *W. striata*, "racamatraca" are applied to the chest to relieve inflammation of the lungs. *W. poselgeri*, from Texas, known as leadpencil cactus because of its slender stem, and dahlia cactus from its tuberous roots, has fragrant purple flowers.

17. PENIOCEREUS. Species 2. *P. greggii*, the slender, modest, fragrant nightblooming cereus of the Arizona desert, called "chaparral cactus" has a large subterranean root system, and erect flowers.

18. DENDROCEREUS. Species 1. *D. nudiflorus*. West Indies.

19. MACHAEROCEREUS. Species 2 from Baja California. *M. eruca*, the "creeping devil," is a stout cactus with vicious spines, branches to 9 feet, with a creeping caterpillar habit, in which the growing head is always elevated sufficiently to cross obstacles in its path.

20. NYCTOCEREUS. Species 5. Mexico and Central America. *N. serpentinus*, "reina de la noche," erect or drooping slender stemmed plant, with very fragrant white nocturnal blooms, is the best known member of this group and has been in cultivation so long its origin is unknown; I have found this plant in amazingly luxuriant growth, in a protected situation on an old rancho of the San Gabriel Valley.

21. BRACHYCEREUS. Species 1. *B. thouarsii* from Galapagos Islands.

22. ACANTHOCEREUS. Species 7. The most widely distributed member of this genus is *A. pentagonus*, found in Texas, Mexico, Central America, Northern S. America and Guadalupe. Its wide distribution may be due in part to its habit of "walking"; it colonizes by arching its long stems and rooting at the tip. Flowers large, greenish white, nocturnal; fruit edible, with a thick dark-red skin, which breaks irregularly from top downward, and red pulp.

23. HELIOCEREUS. Species 5. From C. America, Mexico and Guatemala. Slender with angular stems, of quick growth and very floriferous. Day bloomer. *H. speciosus*, also known as *C. speciosissimus*, and "xoalacatl" is the famed member of this genus, because of the color-card of its large flowers, which are scarlet with a steel-blue center; (crimson and violet, Watson) the 3 to 5-ribbed plant-stems flush with carmine during period of growth. A sun-lover.

24. **TRICHOCEBUS**. Species 19. From Ecuador, Bolivia, Peru, Chile and Argentine. ("Haarcereus." Alwin Berger.) Many of the members of this group of columnar cacti come from far up in the Andes, *T. pasacana* being found at a height of ten thousand feet. As a group they are noticeable for the abundance of their hair-like spines. *T. spachianus* is the most commonly seen type in cultivation. It is a fast grower and much used as a base in grafting. *T. chiloensis* has a bloom of notable beauty.

25. **JASMINOCEREUS**. Species 1. *J. galapagensis*.

26. **HARRISIA**. Species 17. Florida, Cuba, Isle of Pines, Jamaica, S. America. This group of very thorny, climbing *Cereus* was named for Dr. Wm. Harris, Superintendent Jamaica Public Gardens and Plantations.

H. tortuosa is dangerous to marauders, and excellent to train along the top of the garden wall. *H. bonplandii* excels in the size and beauty of its blooms, ten inches in diameter, white and fragrant. All species are night bloomers. The *Harrisias* are used on pergolas in the gardens of the Italian Riviera and are extremely decorative.

27. **BORZICACTUS**. Species 7. From the highlands and Andes of Ecuador, Bolivia and Peru. First found on Chimborazo by Alexander von Humboldt. Seldom in culture although very handsome. *Borz. strausii* (Berger. Knuth.), a slender columnar cactus sometimes developing a head like the crest of a cock. The great number of fine hairs from the areoles stick out covering the plant entirely, and are mixed with a sparing number of spines. "Known for about twenty years, it is now one of the most desired; its charm is attributable to its pure white garb, for which it is cherished." Kupper. The seedlings, not quite so rustic in appearance as *Cephalocereus senilis*, are charming.

28. **CARNEGIEA**. Species 1. *C. gigantea*, the stately *Saguaro* of the Colorado desert, whose flower is Arizona's emblem. Stem single and upright to 40 feet high; may branch; ribs 12 to 24; areoles brown-felted; spines to 2 inches long; flowering top; flowers creamy-white; fruit red or purple and an important article of food; the seeds contain much oil and are ground into a paste used as butter on tortillos; the dried woody ribs of the stems are used by the Indians in the framework of their hogans, and for lances when fishing.

29. **BINGHAMIA**. Species 2. *B. melanostele*, and *B. acrantha*, from Peru.

30. **RATHBUNIA**. Species 2. Slender, single or bushy, stems erect or bent; ribs prominent, 4 to 8; flowers scarlet, solitary, tubular; fruit red.

R. alamosensis, from Alamos Sonora; slender column to nine feet high, which bends over and roots at tip, another one of those "walkers"; the fruit is red, globular, and known as "cina."

31. **ARROJADOA**. Species 2. *A. rhodantha* and *A. penicillata* are native in Brazil, develop pseudocephalium, and red flowers.

32. **OREOCEREUS**. Species 2. Very showy *cereus* from the Andes of Bolivia, N. Chile, and S. Peru. *O. celsianus*, 3 feet high and 3-4 inches in diameter, with 10 to 17 ribs, is half hidden with its coat of white "wollhaar" from which stand out long spines of rich gold. *O. irigoyenii*, new species, is the present sensation from the Bolivian Andes, listed by Haage of Erfurt, and most attractive in appearance of photograph.

33. **FACHEIROA**. Species 1. *F. pubiflora* from Brazil.

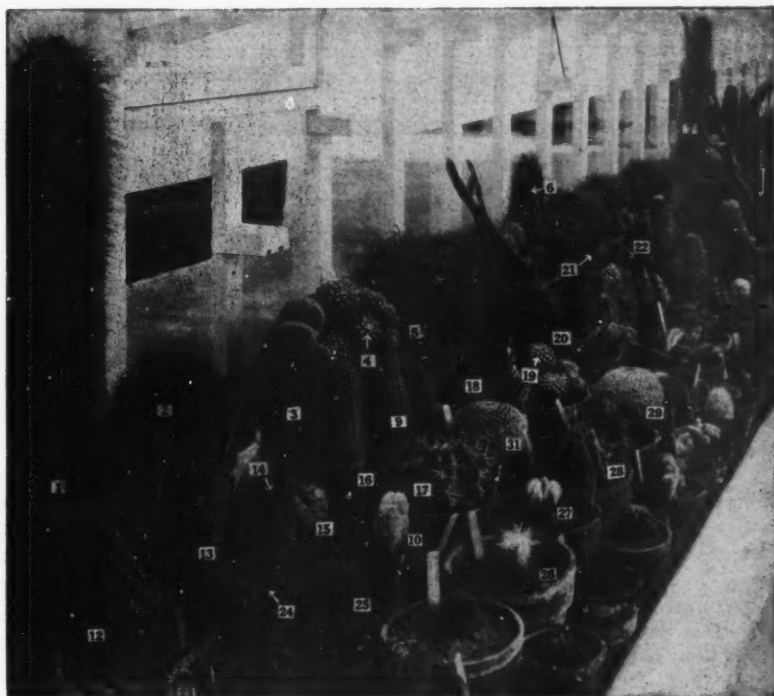
34. **CLEISTOCACTUS**. Species 3. *C. baumannii* from Argentine has been a favorite in cultivation for many years. A group in Huntington Cactus Garden, photographed in full bloom in April, 1930, has 12 stalks to 3 feet in height and an inch and a half in diameter, with many vermillion-red flowers two inches long, which stand almost straight out from parent stem; near this fine plant there is another as fine of *C. baumannii cristata*. The color card of *C. baumannii* is unusually brilliant and was noted by Blanc in his famous Philadelphia catalogue of fifty years ago.

35. **ZEHNTERELLA**. Species 1. *S. squamulosa* from Brazil.

36. **LOPHOCEREUS**. Species 3. There seems to be little doubt the *Lophocereus* found along the Southwest-Mexican border and throughout the length of Baja California will be soon reported as 3 differing species, *L. schottii*, *L. australis*, and a border plant, *L. sargentianus*, with characteristics of both.

37. **MYRTILLOCACTUS**. Species 4. From Mexico, Guatemala, and Baja California. Columnar cacti with short trunks and many branched tops. Flowers small, diurnal and grouped several at an areole. Fruit small, globular and edible. *M. geometrizans*, so robust in structure it also bears the name of *C. gladiator*, is the familiar very blue-branched columnar cactus of every out-of-door collection. There may be 5 or 6 rounded ribs; with radial spines turned backward and long central spine; the seedlings of *M. geometrizans* are a rich blue and most attractive. "Garambullo."

38. **NEORAIMONDIS**. Species 1. *N. macrostibas* from Peru, with a "short beard (or comb) on the cephalium." (Kurztriebartigen Berger.)



The Frick Hothouse

- | | | |
|--|---|---|
| 1. <i>Lophocereus schottii</i> | 11. <i>Echinofossulocactus zacatecensis</i> | 21. <i>Opuntia macrocalyx cristata</i> |
| 2. <i>Echinocactus pfeifferi</i> | 12. <i>Echinocereus fendleri</i> | 22. <i>Cephalocereus hoppenstedtii</i> |
| 3. <i>Echinocactus dasyacanthus, cristatus</i> | 13. <i>Consoles rubescens</i> | 23. <i>Chamaecereus silvestrii</i> |
| 4. <i>Neomammillaria compressa</i> | 14. <i>Opuntia lurida</i> | 24. <i>Cereus peruvianus monstrosus</i> |
| 5. <i>Ferocactus covillei</i> | 15. <i>Echinocactus horizontalis</i> | 25. <i>Neomammillaria magnimamma</i> |
| 6. <i>Echinocereus triglochidiatus</i> | 16. <i>Trichocereus buascha</i> | 26. <i>Cephalocereus senilis</i> |
| 7. <i>Lophocereus schottii</i> | 17. <i>Echinocactus ingens, grandis</i> | 27. <i>Astrophytum myriostigma</i> |
| 8. <i>Consoles corallicola</i> | 18. <i>Lemaireocereus thurberi</i> | 28. <i>Brittonia davisi</i> |
| 9. <i>Trichocereus spachianus</i> | 19. <i>Neomammillaria phymatosele</i> | 29. <i>Coryphantha recurvata</i> |
| 10. <i>Nyctocereus serpentinus, cristatus</i> | 20. <i>Carnegiea gigantea</i> | 30. <i>Cephalocereus senilis</i> |

THE WORM TURNS

Dear Editor:

This picture of my Cactus House is in refutation of an insinuation aimed at me in Ned Lawrence's article in the December number of the JOURNAL, wherein he says, "Another collector who once might justly have prided himself upon a representative collection of Cactus, categorically arranged, has just lately junked truckloads of Cactus to make room for Euphorbias from South Africa and Southwestern Asia." It has been noticed by me that Ned can see all there is of interest to him in my Cactus house in a very few minutes, but on entering the Euphorbia house he immediately adjusts his glasses and seems more content to tarry and

study the plants; perhaps this is because they are Cactuslike and resemble his pets, or perhaps it is his desire to know more about them, at any rate, I would hate to find myself in the position of offering him his choice of either a *Borzicactus straussii*, or a *Euphorbia grandis* if I did not wish to part with the latter.

Yes, truckloads of Cactus have been removed from my place lately, but not as he states, "Junked." They were given gratis to dealers, and are on sale today by them; not because I have lost interest, but instead they have multiplied so rapidly they were over-running the bounds of order in my garden, and at our place order comes first.

G. A. FRICK.

Book Review

ALWIN BERGER'S "CRASSULACEAE"

In "Engler-Prantl, Naturliche Pflanzenfamilien"

Second Edition, Vol. 18a; Leipzig, 1930

Reviewed by ERIC WALTHER

Part II, February, 1931

(Continued from January number)

Subfamily 5, SEDOIDEAE, consists of the nine genera *Sedum*, *Diamorpha*, *Orostachys*, *Rosularia*, *Sempervivella*, *Pseudosedum*, *Afrovivella* n.g., *Senocrassula* n.g., and *Hypagophyllum* n. gen. The newly established genera seem to be well substantiated and need no further mention as they are apparently not grown here. The treatment of *Sedum*, though, is deserving of more detailed examination. As conceived by Berger, the genus contains about 500 species, making it the largest and naturally the most unwieldy of the family. This heterogenous mass is divided into 22 sections, many of which have at various times been considered of generic rank. On the whole the treatment adopted by Berger seems to be sound; and if exception may be taken to some detailed features, these are nearly all debatable questions to be settled only by the test of time. Personally we seriously question the merging of *Graptopetalum* with *Sedum*. In the *Echeveria*-like habit, the lateral inflorescence, the gamopetalous³ corolla with its peculiarly marked segments we have a sum of characters seemingly quite sufficient to constitute a valid genus, its affinities being undoubtedly with the ECHEVERIOIDEAE rather than with *Sedum*. We note that the Rosean genus *Byrnesia* is correctly affiliated with this section, but we find no mention of *Graptopetalum bartramii*. *G. rusbyi* is permitted to remain in *Dudleya*, or *Echeveria*, rather; an error we can attribute only to an oversight, consequent upon the unqualified adoption of Britton and Rose's treatment of *Dudleya* in the "North American Flora." Other genera merged with *Sedum* by Berger are *Sedastrum* Rose, *Hasseanthus* Rose, *Sedella* Britton & Rose, *Corynephyllum* Rose, *Cremnophila* Rose, *Tetro-*

rum Rose, and *Congdonia* Jepson. Quite a number of new combinations result from this, which are summarized below:

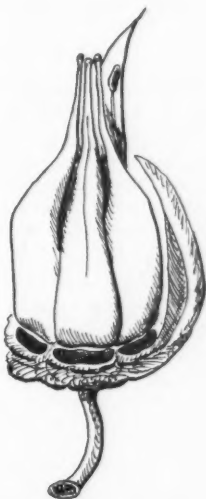
The largest group in *Sedum* is Section 17, *Seda Gennina* Koch, which is further divided into 26 series. The primary grouping by the color of the flowers widely separates the Californian plants constituting Dr. Britton's genus *Gormaniana*, part of the species going into Berger's series AMERICANAE, and the rest into his series ROSULATAE. As there is already a *Sedum retusum*, the new name *Sedum sanbedrinum* Berger is coined for our old friend *Gormaniana retusa* Rose. In spite of the similarity of these forms to *Sedum spathulifolium*, their united corolla-segments furnish a strong argument in favor of their retention in *Gormaniana*, if not as a good genus of its own, then at least as a subgenus or section, especially in view of the importance attached to this character by Berger elsewhere. *Sedum burhami* is undoubtedly a typographical error for *S. burnhami*.

Subfamily 6, ECHEVERIOIDEAE, as conceived here, consists of the genera enumerated in our summary on a preceding page. The central, terminal inflorescence of *Villadia*, *Altamiranoa* and *Lenophyllum* would seem to point to their affinity with the Sedoideae. As regards the remainder of the group, it would appear that, if *Pachyphyllum* is distinct, some of the other genera, sunk in *Echeveria* by Berger, also would seem entitled to recognition as valid. California botanists especially may be expected to disagree with the treatment of *Dudleya* and *Stylrophyllum* as sections of *Echeveria*. While it no doubt is difficult to draw a sharp dividing line between these genera, *Dudleya* with its sessile, stemclaspings, often lingulate leaves, its pale or dull, thin, scarcely keeled corolla-lobes and its usually erect sepals

³Gamopetalous—with the petals united, at least at base.



(No. 1) *Oliveranthus elegans*. x2.5 Ripe follicles.



(No. 2) *Echeveria* sp. x5. Ripe follicles.

coupled with the surprisingly sharp geographical separation, seems to be quite distinct enough to deserve recognition as a sound genus. Berger adopts the treatment of *Dudleya* in the "North American Flora" unchanged except for the new names made necessary by his merging the genus with *Echeveria*. These changes are briefly enumerated below. Someday we hope to see *Dudleya* monographed by a California botanist having a real acquaintance with the plants, not only in the field, but also in cultivation, with due regard to cytology, hybridism, edaphic influences, etc.

We were especially interested in the treatment of *Euecheveria*, or *Echeveria* proper, being engaged at present in a study of our cultivated material. At this time we want to say only that *E. campanulata* Kunze appears to be a sound species belonging near *E. gibbiflora* and having little to do with *E. fulgens*. *E. gigantea* and *E. bolwayi* both from our knowledge of the plants in the collection at the Huntington Botanic Gardens and according to Rose's description, have distinctly pedicelled flowers. We are unable to separate *E. crenulata* from *E. gibbiflora* by the size of the leaves. *Oliveranthus* also is reduced to a section of *Echeveria*; and the well known *E. elegans* has to be renamed consequently, i.e., *E. perelegans* Berger. Personally, we also used to think Rose's genus insufficiently differentiated, but changed our mind on noting the widely spreading, ripe follicles, of which we have seen no mention anywhere. The appended sketch clearly shows how these contrast with the usually strictly erect carpels of *Echeveria* proper. From personal observation we know very little about *Urbinia* and *Thompsonella*, but the united fila-

ments of *Courantia* seem to offer a character fully as striking as the appendages of *Pachyphytum*.⁴

CONCLUSION: From the foregoing critique the impression may arise that the reviewer disapproves of Mr. Berger's work, and deems himself capable of doing a better job. Nothing could be further from the truth, on the contrary, we consider this monograph as the most important recent contribution to our knowledge of the subject, and hold ourselves privileged indeed in being permitted to review it. That there should be differences of opinion is to be expected, and we feel sure that Mr. Berger would prefer frank, constructive criticism to fulsome, superficial praise. We again recommend the essay of Mr. Berger to anyone able to read German and looking for authoritative information on the family CRASSULACEAE. We understand that Mr. Berger's next effort will be the production of a popular handbook on this family, and hope that an English version of this will also be available.

Separate reprints of the monograph here reviewed are obtainable from the publisher: Wilhelm Engelmann, Leipzig, Germany, at 18 Marks per copy. Reference to this JOURNAL is requested.

⁴We take the liberty of submitting a key, of our own conception to the more commonly grown genera, the copyright laws preventing us from giving a translation of Berger's. The genera not recognized as such are marked thus *.

KEY TO COMMONLY GROWN GENERA OF CRESSULACEAE

By ERIC WALTHER

(* indicates genera not recognized as such by Berger)

- A. Stamens as many as the petals.
 - B. Petals grown together to the middle or beyond *Rochea*
 - BB. Petals free or nearly so *Crassula*
- AA. Stamens twice as many as corolla segments.
 - B. Parts of the flower in four's.
 - C. Stamens inserted near base of corolla-tube *Bryophyllum*
 - CC. Stamens inserted at or above middle of corolla-tube.
 - D. Fls. mostly nodding; carpels spreading, shorter than styles *Kitchingia*
 - DD. Fls. mostly erect; carpels connivent, longer *Kalanchoe*
 - BB. Parts of the flowers 5 or more.
 - C. Fls. 6 to many-parted.
 - D. Scales at base of carpels large and petal-like *Monanthes*
 - DD. Scales smaller, not petal-like.
 - E. Rosettes stemless, forming low cushion; hardy *Sempervivum*
 - EE. Plants with evident stem; not very frost-resistant.
 - F. Fls. 16 to 32-parted; carpels transversely dehiscent *Greenovia*
 - FF. Fls. 5 to 12-parted; carpels longitudinally dehiscent.
 - G. Annuals or biennials; lvs. more or less scattered along the slender stems *Aicbryson*
 - GG. Shrubs or subshrubs with lvs. in terminal rosettes *Aeonium*
 - CC. Fls. mostly 5-parted.
 - D. Inflorescence central, terminal; lvs. only rarely rosulate.
 - E. Petals free to base or nearly so.
 - F. Infl. secund-cymose; petals thin, mostly spreading above *Sedum*
 - FF. Infl. equilateral; petals erect *Lenophyllum*
 - EE. Petals more or less united.
 - F. Calyx-segments small, shorter than corolla-tube.
 - G. Infl. paniculate; plants deciduous, persisting by means of perennial tubers *Umbilicus*
 - GG. Infl. cymose or spicate; plants evergreen subshrubs.
 - H. Infl. cymose; fls. large, narrow-bell-shaped, nodding *Cotyledon*
 - HH. Infl. spicate; fls. small, narrow-tubular, erect *Adromischus*
 - FF. Calyx-segments conspicuous, as long as or longer than corolla-tube.
 - G. Stems procumbent, with terminal rosettes of flat, obtuse leaves *Gormania**
 - GG. Stems erect, with lvs. scattered, terete, acute *Altamiranoa*
 - DD. Inflorescence lateral, axillary; lvs. mostly rosulate.¹
 - E. Corolla-segments radially spreading from the middle.
 - F. Corolla-seg. banded or spotted; carpels erect *Graptopetalum**
 - FF. Corolla-seg. otherwise; carpels spreading *Stylophyllum**
 - EE. Corolla-seg. erect or only slightly spreading above.
 - F. Calyx-segments shorter than corolla-tube *Urbinia**
 - FF. Calyx-segments longer than corolla-tube.
 - G. Petals appendaged within *Pachyphytum*
 - GG. Petals not appendaged.
 - H. Carpels widely spreading at maturity; fls. large, solitary or in 2's. strongly pentagonal *Oliveranthus**
 - HH. Carpels erect; fls. many, small to medium-sized.
 - I. Corolla red or yellow, showy, strongly pentagonal, segments thick and fleshy, sharply keeled on back; sepals mostly spreading; lvs. usually readily detached, narrowed to base *Echeveria*
 - II. Corolla pale or dull-colored, slightly angled, segments thin, scarcely keeled; sepals erect or appressed; lvs. with broad, sessile, more or less stemclasping base *Dudleya**

(¹As mentioned before, some anomalous species of *Sedum* are possessed of lateral, axillary flower-clusters. These may be recognized by the free petals more or less spreading above; and will be discussed more at length shortly. E. W.)

Alphabetical list of new genera, and such of the new specific names, and new combinations as seem to be important, either because the plants are in cultivation here, or because they are native to California.

By ERIC WALTHER

- Adromischus* van der heydeni Hort. *Adromischus clavifolius* (Haw.) Lem.
Afrovivella new genus. *Sedum weinbergii* (Rose) Berger
Byrnesia weinbergii Rose. *Sedum pinetorum* Brandege
Congdonia pinetora (Brandg.) Jepson. *Sedum Sect. Lenophyllopsis* Berger.)
Cotyledon sprucei Baker. *Echeveria sprucei* (Baker) Berger
Dudleya Britton & Rose. *Echeveria* Section *Dudleya* Berger
 " *pumila* Rose. *Echeveria parva* Berger
 " *lurida* Rose. *Echeveria monicae* Berger
 " *gigantea* Rose. *Echeveria amadorana* Berger
 " *humilis* Rose. *Echeveria diabolii* Berger
Echeveria elegans Rose. *Echeveria perelegans* Berger
 " *palmeri* Rose. *Echeveria rosei* Nelson & Macbride
Gormania retusa Rose. *Sedum sanbedrinum* Berger
Graptopetalum Rose. *Sedum Sect. Graptopetalum* Berger
 " *pachyphyllum* Rose. *Sedum atypicum* Berger
 " *pusillum* Rose. *Sedum graptopetalum* Berger
 " *weinbergii* (Rose) E. Walther. *Sedum weinbergii* (Rose) Berger n.c.
Hasseanthus Rose. *Sedum Sect. Hasseanthus* Berger
Hypagophytum new genus. *Bryophyllum aliciae* (R. Hamet) Berger
Kalanchoe aliciae R. Hamet. *Bryophyllum daigremontianum* (H. & P.) n.c.
 " *daigremontiana* Hamet & Perrier. *Kitchingia mandrakensis* (Perrier) Berger n.c.
 " *mandrakensis* Perrier. *Bryophyllum tubiflorum* (Hamet) Berger n.c.
 " *tubiflora* R. Hamet. *Bryophyllum uniflorum* (Stapf.) Berger n.c.
 " *uniflorum* Stapf. *Bryophyllum uniflorum* (Stapf.) Berger n.c.
Mucizonia new genus. (Umbilicus Sect. *Mucizonia* DC.)
Oliveranthus elegans Rose. *Echeveria elegans* (Rose) Berger n.c.
Pseudosedum new genus. (Umbilicus Sect. *Pseudosedum* Auct.)
Sedum hirsutum var. *baeticum* Rouy. *Sedum winkleri* (Willk.) Wooley-Dod
 " *sexangulare* Auct. *Sedum mite* Gillib.
Sedastrum Rose. *Sedum Sect. Sedastrum* Berger
Sempervivum chrysanthum Hochst. *Aeonium chrysanthum* (Hochst.) Berger n.c.
 " *dichotomum* DC. *Aichryson dichotomum* (DC.) Webb & Berth.
 " *caespitosum* Hort., not C. Smith. *Aeonium floribundum* Berger
 " *tortuosum* Hort. *Aeonium domesticum* (Praeger) Berger n.c.
Sinocrassula new genus.
Urbinia agavoides (Lem.) Rose. *Echeveria agavoides* Lem.
 " *purpusii* Rose. *Echeveria purpusorum* Berger

*Note, this is a hybrid between *Ae. caespitosum* and *Ae. spatulatum*.

EXCHANGES

Conducted by MRS. W. M. KETTERINGHAM
 610 West 65th Street, Los Angeles

The Exchange Department is conducted for the benefit of all subscribers to the Journal, and in order to expedite the handling of your requests for exchanges please accompany the list of plants you have for exchange with a stamped self addressed envelope. Through this Department you will then be put in touch with some member or members of the Society who have the plants that you desire.

Exchanges Offered

Will exchange for Euphorbias or Haworthias:

Cereus phyllanthus
Phyllocactus peacockii
Aloe vera
Aeonium canariensis
Manfreda gigantea variegata
Mesembryanthemum coccineum
Mesembryanthemum densum
Mesembryanthemum deltoides

Mesembryanthemum linguiforme
 Also several hundred *Cereus* seedlings.

Will exchange for Haworthias:

Lithops pseudotruncatellum seedlings.
Lithops leslei seedlings
Euphorbia pseudocactus
Crassula impressa
Cotyledon, several species
 Other Cacti and Succulents.
Dyckia brevifolia
Dyckia montevidensis
Gasteria parvifolia
Gasteria trigona
Astrophytum myriostigma seedlings, one year old
Cereus macdonaldiae
Bryophyllum daigremontianum
Harrisia eriophorum 6" by 3/4", rooted
Euphorbia beaumeriana, cuttings
Euphorbia resinifera, cuttings
Euphorbia ledienii, cuttings
Euphorbia globosa, rooted
Euphorbia cereiformis, about 10" tall, rooted
 Also many rare seedlings.

SUPPOSE IT IS SPINELESS

By NED LAWRENCE

Two questions are constantly being asked of members of the Cactus and Succulent Society of America, and of the editors of the JOURNAL.

One has to do with the nonsensical idea that if cactus were to be divested of its spines there would be millions in it; the other is the curiosity manifested to see that particular cactus which jumps out and stings the unwary passer-by.

The answer to the first query is that a fresh sucker is born in the human family every minute; and to the second that the world is now and has been and ever will be full of liars without end—Amen.

Popularly Luther Burbank is credited with the development of spineless cactus. He certainly got more notoriety out of his experiments along that line than in anything else he ever did.

But he never claimed the discovery of spineless cactus, and he never claimed much merit for his development of the species. All the claiming was done by glib stock-salesmen who saw the chance to lure the credulous into purchases of shares in companies to promote the cultivation of spineless cactus. It was highly embarrassing to Luther, who was a scientific experimentalist and not a promoter of get-rich-quick schemes.

He proved that cactus could be bred with large fleshy joints, devoid of spines. Having done that he was through.

The fakers now stepped in and tried to induce nice old ladies of both sexes to embark in the business of raising Burbank spineless cactus. As a result there sprang up acres upon acres of this hybrid *Opuntia* all over the southland.

Even now one may ride about Los Angeles and see abandoned acreage given over about twenty years ago to raising spineless cactus. Of course the tenderfeet were successful in raising the crop, but of what good was it, after they had raised it?

The promoters had painted vivid pictures of untold wealth to be derived from selling spineless cactus in bales by the ton to feed to cattle in lieu of hay. The suckers didn't stop to investigate. They never even so much as offered a slab to a cow. If they had they would have known more.

No cattle, horses, burros or any known animal

will eat a cactus joint unless it is about starving. Even then it will chew the darned stuff with repugnance.

So when the first crop of spineless cactus was ready for harvest, and there was no market for the crop, the gleaners hung up their sickles and joined in the old, old chorus, "Stung again."

The U. S. Department of Agriculture once set up an experimental station to see what there was to this idea and financed it for a period of years, and a competent and thorough analysis was undertaken to learn which *Opuntias* were best for breeding purposes, and how they would respond to kindly cultivation. However, the prickly pear is not a grateful organism; it will stab friend or foe alike as long as it has a spine left.

About all that came from the experiment were some bulletins for farmers about the importance of the prickly pear as stock feed. They were all right, too, about the tonnage to the acre and the nutritive values and what not, but also failed to ask the cow how she like the ration.

The experimental station has been discontinued now. The *Opuntias*, gathered from all parts of the Americas, have been dispersed. The fallacy has been exploded.

It may be stated plainly, if bluntly, to all our friends in the audience that cactus has no commercial value whatsoever because of any use which can be made of it or service it may perform. The dreamer may think it ought to be valuable for something. That is the Scotch thrift or the Pilgrim Father economy of his ancestors cropping out in him.

But the cactus, like the lily, neither toils nor spins. Its ugliness is its charm, and it has a perfect right to be useless if it wants to be. Indeed I am rather grateful to Mother Nature for having created something that is not worth anything except to look at in wonder.

EDITOR'S NOTE: The weekly meeting of the Editorial Staff will be Wednesday evenings at Abbey San Encino, 6162 Pasadena Ave., Los Angeles. Anyone desiring to help with the JOURNAL is cordially welcome.

AN OLD PLANT UNDER A NEW NAME

By JAMES WEST

One of the Sedums not infrequently found in collections is the species hitherto known under the name of *Sedum birsutum* var. *baeticum*.

It is so mentioned in Praeger's monograph on the genus, following Rouy's description of 1887 in the *Bulletin de la Societe Botanique de France*.



Photo by J. West

Sedum winkleri (Willk.) Wooley-Dod

However, in Berger's latest treatment of the genus in Engler's *Natuerlich Pflanzenfamilien* the plant is given specific rank as *S. winkleri*, following Wooley-Dod, who reinstated it in *Sedum* after Willkomm had made it a species of *Umbilicus* in *Vegetation der Erde* (1896). There seems little warrant for including it in that genus even in its former more inclusive extent, for though Berger describes the petals as being connate for one-third of their length, the plant is in all other respects so evidently a *Sedum*, that one would hesitate to allow that character sufficient weight to take the species out of the genus.

That the plant deserves specific rank, however,

will be apparent to anyone who has opportunity to examine it side by side with *Sedum birsutum* type, a plant not common in collections.

S. winkleri is a rather handsome plant, forming dense terminal rosettes of light green flattened-terete leaves on stout branching stems; it is glandular-hairy in all its parts; the flowers are large and substantial-looking for a *Sedum*, borne well above the plant. They are pure white with conspicuous brownish-purple anthers which give them a spotted appearance. Though not a fast grower, it is vigorous and quite easy to grow.

Its provenience from the south of Spain should be a guarantee of its well-being in the warmer parts of California, though it seems to be quite hardy in England.

The fine flowering plant here illustrated was grown by our member, Mr. J. R. Brown, of Pasadena.

PRESSED CACTUS FLOWERS

By W. E. BROADWAY, Trinidad, B. W. I.

Both botanically and horticulturally I am a believer in owning a series of pressed flowers, mounted and arranged in order for reference purposes. To my mind there are advantages to be gained apart from the pleasure derived therefrom, especially when no fresh flowers are available.

At your second annual Cactus and Succulent Show I see that a prize was awarded for pressed flowers to Miss Janet Riddle. This lady deserves congratulations on her success. I think it a wise step to encourage such exhibits, especially among girls and boys at school, and of course grown-ups as well. After a little practice, our own Girl Guides of this colony became proficient in the preservation of flowers in general. A cactus flower, however, is a proposition in itself.

In my possession I have an *Opuntia* flower cut in three vertical sections which was sent me from La Mortola, Ventimiglia, Italy, by Dr. Alwin Berger in the year 1905. In his letter to me on Cactaceae, dated in November of that year this is what he wrote about the preparation of a flower:

"I generally split cactus flowers in two and

put them for about 20 minutes in alcohol, and then dry them like other plants."

And in another paragraph:

"The preparation of the flower is a very simple thing. I enclose you a flower of an *Opuntia* prepared in alcohol. The petals must not be immersed, or they lose their color! Sections of a flower are not always easy to make, but two will suffice. The fruits can be prepared likewise, that is the pulp with the seeds must be removed, note color or pulp and whether the seeds are numerous or not."

The three sections of the *Opuntia* flower sent by Dr. Berger are to this day in perfect condition, even to the ovaries. When Dr. N. L. Britton, your honorary president, was visiting Trinidad on two occasions a few years ago, he very kindly showed me how both he and the late Dr. J. N. Rose sliced and sectioned cactus material when studying the various genera and species for their work, "The Cactaceae."

DR. BRITTON'S NOTES

on *Byrnesia weinbergii*
(T. B. Shepherd) Rose

Interest in this striking plant of the Stonecrop Family has been stimulated by Mr. Walther's recent reference of it to the genus *Graptopetalum* (Journal Cactus and Succulent Society: 1: 184) a relationship which its floral structure appears to indicate, as noted by Dr. Rose in his original description of it (Addison 7: 37, pl. 234) in 1922. The plant which furnished Miss Eaton's painting, there reproduced, has continued living ever since, under glass, at The New York Botanical Garden, but has rarely flowered again, and Dr. Rose records that a plant in the Washington greenhouses flowered only once during fifteen years.¹ My knowledge of its flowers, therefore is insufficient to enable me to form a worthwhile opinion as to whether Mr. Walther's disposition of it has or has not improved its classification, on floral characters, and its ripe fruit has not been described.

I would like to record, however, that it is the best plant of its family we know of, for cultivation in West Indian gardens, in relatively wet or moist climates. It was sent from The New York Botanical Garden in 1924, to Mr. Arthur S. Fairchild, for observation in his important garden at Louisenhoj, St. Thomas, and has since grown there luxuriantly, at an altitude of about 800 feet, with rainfall of about 50 inches annually. Some years previously Miss Noble brought plants from Havana, Cuba, to her garden at sea-

level, at Condado, Porto Rico, where I saw it last winter as a mass a foot in diameter; some of this was given to Mrs. McKay-Jones for her garden at Hacienda Limon, where it has grown quite as well at about 1800 feet elevation. At both of these Porto Rico gardens the rainfall is much higher than on St. Thomas.

While we are all as yet ignorant of the natural geographic distribution of this plant, in aspect and habit more like some *Echeverias* than any of the true *Graptopetalons*, the demonstration of its luxuriant reaction to wet tropical environment, would indicate that it will, in the end, be found, at home in a hot and wet region. I may add that it is unknown as a wild plant in Cuba.



Echinocereus blankii

Photo by Hess

Echinocereus blankii occurs along the Rio Grande River in Southern Texas, and is found as far south as Tamaulipas, Mexico, where it was first discovered. The picture presented herewith is that of a plant collected by William E. Hess about 15 miles from San Antonio, Texas, and shows seven of the wonderful dark red to purple flowers this species produces. The flowers open about noon and close about 5 p. m. for three consecutive days.

The stems, as the picture shows, are erect, but prostrate when elongated; sprouting from underground and forming clumps or colonies; are dark green in color but turn a brownish color at the base with age; are brittle and propagate from cuttings. They attain a length in some cases of 15 inches, and are from 1 to 1½ inches in diameter.

This species is closely allied to *Echinocereus berlandieri*, does very well in cultivation and will live through a slight freeze without injury to the plant.

DON KISSINGER.

¹*Graptopetalon byrnesia* flowers freely every season in California, but only in the open ground.—E. W.

MORE ABOUT MALAGASH SUCCULENTS

Mr. Scott E. Haselton, Editor,
Journal of the Cactus and Succulent Society of America

Please allow me to make the following comments about the three articles in the September and October numbers which dealt with some of my "pets." I refer to the notes by Mr. West concerning *Kalanchoe uniflora* and *K. daigremontiana*, and that by Mr. Walther about *Senecio crassissimus*, plants which I brought from Madagascar two years ago.

With regard to the *Senecio*, evidently Mr. Walther did not realize that Dr. Henri Humbert (please not the spelling) was the leader of the exploration party which resulted in the introduction of this plant. However, I collected this particular material and will take all the blame for not recognizing it as *S. crassissimus*. I think it safe to accept Mr. Walther's classification, for I find in our files a photograph taken by Dr. Humbert on our trip, showing *S. crassissimus* in flower. Although Madagascar has many interesting and virtually unknown *Senecios*, I believe

there is no other which has the characteristic type of leaf arrangement that this has.

As to the other plants, whether called *Bryophyllum*, *Kitchingia*, or *Kalanchoe*, they are equally attractive, both as succulent ornamentals and as peculiar examples of vegetative propagation. The distinction between these three genera seems rather arbitrary and uncertain, and personally I would prefer to retain the name *Kalanchoe*, even at the expense of having it frequently mispronounced.*

The origin of the plant which Mr. West calls *Bryophyllum uniflorum* has been uncertain, but I believe it can now safely be classed as a true Malagash emigrant. Its history runs something like this:

In 1908 the Angers (France) Botanic garden presented the Royal Botanic Gardens, Kew, with a plant of unknown origin, probably purchased in Belgium. This proved to be very similar to the herbarium specimen collected by Rev. Baron

*Correct pronunciation, Kal'en-ko'e



No. 1—*Kalanchoe beharensis* (plant with large leaves in center of picture) holds its own in the dense "intisy brush" of southern Madagascar.



Photo by H. Humbert

No. 2—*Euphorbia enterophora* and others of the southern Madagascar euphorbias in their native habitat.

in northern Madagascar some 25 years before. Stapf named this *Kitchingia uniflora* (Kew Bulletin, 1908) and showed a colored picture of it in Curtis's Botanical Magazine for 1909. The following year Raymond Hamet showed how this did not even belong in the section *Kitchingia*, and insisted upon the name *Kalanchoe uniflora*. Apparently no specimens ever reached the United States from this introduction into Europe.

In October, 1928, after the completion of my expedition with Dr. Humbert in southern Madagascar, I left the boat at Diego Suarez, at the extreme northern tip of Madagascar, long enough to make an excursion upon Mt. Ambre. Here at the edge of the tropical rain forest, growing upon tree trunks, I found the plants from which Miss Sessions later obtained her material. At that time I knew nothing of the past history of this plant, but it seemed surely to be growing in its native habitat, and equally surely did it appear that it would find a place in American horticulture.

I am surprised at the reputation this plant has for being hard to grow. Probably this black eye comes from the fact that even the most desert-loving of the Kalanchoes find the American living room too dry for their liking during the winter, and demand plenty of humidity in the

air. Given humid greenhouse conditions, most of the Kalanchoes, including this one, have grown like weeds.

I see no cause for alarm, however, on this score, for apparently everywhere in the United States the winters will effectively check the Kalanchoes from becoming weeds. For that matter, it is doubtful if any of them, unprotected, can withstand even California winters.² Also, though all seem to be easy to grow in the greenhouse, it must be remembered that apparently none of the Crassulaceae ever throw up suckers, in fact none seem to have the power to develop stem growing points on root tissues.

Madagascar has a large number of these characteristic succulents, variously known as *Kalanchoe*, *Bryophyllum*, and *Kitchingia*. They range from epiphytes, such as *Kalanchoe uniflora*, a few inches long, found on tree trunks in the tropical rain forest, to shrubs nearly 20 feet high, growing in the "intisy brush"—the extremely arid region of southern Madagascar where it may not rain for six years (see accompanying photograph No. 1). Our expedition two years ago brought back over a dozen species,

²*K. tubiflora*, *crenata*, *daigremontiana*, *somaliensis*, etc., have survived, so far, this winter in the open at the Huntington Botanic Garden and also at Mrs. Max M. Cohn's near Los Gatos, Calif.

most of them sharply distinct from one another in vegetative characters.

It is pleasing to note the extremely cordial reception which these Malagash visitors have received in the United States. Undoubtedly there are just as many or more additional of these characteristic and highly ornamental types waiting to come to our shores; nearly a hundred of these Madagascar Kalanchoes have been described botanically but very few have been introduced, even into Europe.

The same holds true to an ever greater extent for numerous other species of succulents; in fact all Madagascar, and especially southern Madagascar, is surely the succulent lover's paradise. The most numerous and dominating of these succulents are the tree Euphorbias (*E. laro*, *E. stenoclada*, *E. enterophora*, etc.) Forty feet high, some of them, and at a distance looking for all the world like a pine forest, yet true Euphorbias—milkweeds! (See accompanying photo No. 2.) Other extremely interesting plants are the numerous aloes, the didiereas (a queer family containing only half a dozen species) and the surprisingly solid-looking elephants feet (*Pachypodium*).

Very truly yours,

CHARLES F. SWINGLE.

SECRETARY'S NOTES

The February meeting of the Society will be held at the Los Angeles Public Library on Saturday evening, the 28th, at 8:00 p. m. An interesting meeting has been planned.

Tentative dates and places of meeting for the year 1931 are as follows:

February 28—Los Angeles Public Library.

March 20—Pasadena Public Library.

April 26—Palm Springs.

May 10—Huntington Gardens.

May 21-24—Annual Show.

June 21—Long Beach.

July 19—San Francisco.

September 6—San Diego.

September 27—Santa Barbara.

October 23—Los Angeles Public Library.

November 20—Pasadena Public Library.

December 18—Los Angeles Public Library.

W. M. KETTERINGHAM, Secretary,

610 West 65th Street,

Los Angeles, California.



By MARY NORWOOD LAWRENCE

A clipping from The Star, London, England, speaks the "need of the general public for simplified names of common objects. Many times Latin and Greek cognomen are found to be a barrier to the taking up of interesting hobbies. The novice finds this especially true in collecting or studying Cacti. Where there is a well known name, why not use it? Where classification is purely technical it is not expected to be given."

The answer is that so-called household names are localized. What is Peyote in Mexico is Mescal Button or Dry Whisky to the Texans; and the old Spaniards called the *Lophophora williamsii* the Sacred Mushroom.

So also of the Pincushion Cactus. In Texas it means *Echinocactus texensis*. Further on in the Rio Grande Valley, Ellen Schultz, in "Texas Cacti," tells us it is known as *Manco caballo*, which means horse cripper. The stout thorns penetrate the hoofs of cattle and horses, making festering sores and lameness. In Eastern United States it refers to *Echinopsis multiplex*. Two different families.

If on the other hand we use the botanical name of a plant it is the same in America, South Africa or Germany. We all use the same language.

That is why the use of scientific appellations. Not affectation of learning of which we are accused.

Word comes from Canada of the total loss of J. H. Callender's wonderful collection of *Euphorbias*. Mr. Callender had his plants stored in a shed while moving. A cold snap came on, unforeseen, and froze them all, including the finest *Euphorbia lactea cristata* in America. A real tragedy to us also, who have just managed to save a few *Euphorbias* planted out, risking pneumonia, snatching them in for the night, when a sudden frost threatened—even in California!

Botanists are now discovering that plants have morals, and cite the Mistletoe and Orchid as having a sense of fair play. Accused of being parasitic because it invariably attaches itself to a tree and sends its roots through the bark to absorb some of the tree's energizing sap the mistletoe is now credited with sending back into the trunk of the tree during the bleak winter months much of the nourishment it borrowed in spring and summer.

Orchids, also, seem to have a friendly feeling for the trees in which they climb. They take nothing from them, gathering their sustenance from the moisture, gases and chemical elements in the air, and, in appreciation for a place to climb and blossom they adorn their host-trees with the most beautiful blooms in nature.

Other plants are villainously unmoral. They prey on other plants, on insects and even on small animals. Witness the Venus Fly Trap and the Pitcher Plant. The latter is the more cruel because the inner surface of its pretty green trap is equipped with tiny spikes which impale the victim and hold it in a vice-like grip until the plant has consumed such parts of the animal as it wants.

And what about our spiney friends? Can anything be more vindictive and resentful than the spiculed *Microdasys*, looking so pretty and so harmless?

THE PRESIDENT'S MESSAGE

Two years ago when a little group of women met in Los Angeles and laid plans for the organization of a group having for its purpose the study of desert plant life, it is doubtful whether they visioned how rapid would be the growth of the substance of their idea. From a beginning, the numbering less than ten, nearly a thousand members have been enrolled on our records. At the close of the first year the number had reached four hundred seventy-six. On January 10th of this year, membership card No. 956 was sent to its proud owner. An increase of 100% during the second year! United States members are found from New Jersey to California and from Michigan to Texas. Thirteen foreign countries represented give the Society the appearance of being an international rather than a national society. But then the lover of nature knows no barriers of state or nation.

During these two years the Society has suffered some of the ailments incident to infancy but has emerged a lusty youngster giving its officers some concern as how best to care for its future. And it is to the future to which we must look. What has passed cannot be changed but the experience gained forms a valuable foundation upon which to build. Those who have so well guided the activities in the past, will, I trust, see in the future an enduring structure builded upon their efforts.

Section 1 of Article II of our Constitution reads: "This Society is formed for the purpose of stimulating interest in the conservation, and promoting the culture and development of cactus and other succulents; to further the use of a standard nomenclature; to acquire and disseminate information regarding these plants, and to encourage their production and propagation; to give exhibitions and to make such publications as are deemed desirable."

With a goal as worthy as this we are faced with a challenge—a challenge to promote the growth of the organization in such a manner that the joy and fascination of working and playing with this wonderful group of plants with which we are concerned may be brought to the attention of a larger number of people. If we can provide a field that will assist in profitably occupying their time, either leisure or otherwise, we shall have helped to make the world a happier place in which to live.

We are all dreamers of dreams. In my dreams of what I hope may be accomplished for the Society this year I should like to mention the following. With a co-operative Executive Board such as I am sure we shall have, most of the points of which I speak should be accomplished facts before the close of this administration.

My first and perhaps my biggest dream, is that of creating a sentiment that will eventually lead to our possessing a permanent home and garden for the Society. This in its entirety probably will not be accomplished for several years but it is none too early to begin to work toward that end. Already the growth of the Society has made it imperative that there be a permanent address. The best interests of the Society cannot be served by a change of headquarters with each new administration. As to a garden of correctly named specimens, anyone who has tried to find names for his plants as he collected them will appreciate its value.

Next, I would name the creation of a fund the proceeds of which can be used to further the work of the organization either in scientific work or to provide additional literature in English on subjects pertinent to our field.

In our Constitution we pledge ourselves to conservation. As yet we have not declared ourselves. We should have the courage of our convictions whatever they may be and unhesitatingly declare ourselves as to our policy. What is conservation? Does it mean the absolute prohibition of the removal of any or all plants from their native habitat? Does it mean that a favored class shall be given the privilege of collection? Should the county, state or nation enact the necessary legislation? How shall these enactments be enforced? These and many other questions might be asked. A committee of the Executive Board has been named to study the subject and to make recommendations as to a sane policy for us to follow.

My next hope is that of building up and making available to our membership a real library on the subject of cacti and other succulents. We have made a creditable beginning along this line but we should allow no book which is available to pass from within our reach. Britton and Rose's *Cactaceae* has been adopted as our standard for purposes of identification yet the Society does not own a set of its own. Individual members of the Executive Board and other members have copies but the Society should possess a set in its own right. The high cost has been one reason for its non-purchase.

The formation of societies affiliated with the national Society is another of our cherished hopes. Already the leaven is working in New Jersey, in the San Francisco Bay District and in San Diego. No better means can be found to spread the gospel of this interesting subject.

Have you ever wondered how to pronounce the name of some new plant or, if you did know, have you wondered what the name signified? It is hoped that you may have some assistance along this line through the publishing by the Society of a Cactus Dictionary. Work has begun on this tedious task and we hope to have it completed as rapidly as possible.

That the Editor's dream of reprinting Britton and Rose's *Cactaceae* may be fulfilled is sincerely hoped. Two very important problems are being considered. The first is the enormous cost of reproducing the color plates and the second is changing the size of the JOURNAL. Our Editor is earnestly working to make this very desirable project possible. The high standard of our JOURNAL will be maintained without question.

Our membership is scattered over the world. Yet a large group who deserve our earnest consideration is the group who attend our monthly meetings. In so far as it is possible for us to do so, we hope to make our meetings profitable for those who attend. At each meeting it is planned to set aside a portion of time during which the problem which is important to you may be discussed. Will you please feel that this is your Society? Being a beginner, your president will have a very kindly feeling toward the many other beginners.

I express to you my sincere appreciation for the high honor which you have bestowed upon me in electing me your president for the year 1931. I pledge my best endeavor to serve you. With that I bring the word of the Executive Board that its policy will be to deal fairly, impartially and fearlessly with the problems that come before it.

BOYD L. SLOANE,
1421 Dominion Ave., Pasadena, Calif.

Die Welt Der Pflanze, part 3, by Walter Haage, has just been received by the Librarian. It is similar to the first 2 albums issued by the firm of Frederick Adolph Haage Jr., of Erfurt, Germany, and contains 48 full page photographs of Cactus and Succulents, bound in card board covers 7x10. Introduction in German.

M. N. L.

RARE CACTI AND EXOTIC CACTUS SEED

Mr. Wilhelm Hennis, Jr., of Hildesheim, Germany, who is making an extensive collecting trip through Venezuela and Colombia for Cacti and Orchids, has given me the agency for the United States and Canada for his plants from the above mentioned countries and Cactus seed from Peru and Bolivia also. Here is an opportunity for importers to get some of the rarities from South America. The prices are reasonable, \$1.00-\$1.25 each, and postage, and will include such rarities as follows:

Neomamillaria mamillaris

Cephalocereus lanuginosus

Melocactus amoenus

Cephalocereus colombianus

Cephalocereus albispinus

Cephalocereus species

Cuttings of the *Cephalocereus* will be 20-30 cm. long.

OPUNTIA SEED SPECIAL

I have a fine supply of rare *Opuntia* seeds on hand as listed by Mr. Ferdinand Schmoll. These seeds are all rare types and at least five are hairy under glass.

20 sp. *Opuntia*, 1 gram of each, reg. \$2.75-\$2.25, including the following which may be had separately:

Opuntia cantabrigiensis 25c

Opuntia pilifera blanco 20c

Opuntia megarrhiza 20c

Opuntia pilifera 20c

Opuntia crinifera 20c

—All hairy under glass.

Very few growers have taken advantage of the low price on the four species of *Echinocactus ingens* as offered at 25c per gram. These seeds are very fertile and grow quite rapidly and make rare plants in the United States. The seed is of medium size and there are about 600 or more to a gram.

During March I hope to have the rare *Melocactus intortus* with a cephalium at least 2 inches tall at \$15.00 postpaid to California and Texas. Weight 15-20 lbs. Also more cuttings of the *Cephalocereus royerii* at \$5.00 per foot. Every cut with flowering areoles and also other rare species from the West Indies.

My seed catalogue, listing several hundred rare species of Cactus seed free upon request.

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